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EXAMINER	
CHANG, SUNRAY	
ART UNIT	**PAPER NUMBER**
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/834,918
Filing Date: April 16, 2001
Appellant(s): LE ET AL.

Majid S. AlBassam
Reg. No. 54,749
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 25th, 2006 appealing from the Office action mailed September 21st, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,674,760	Walrand et al.	1-2004
6,452,915	Jorgensen et al.	9-2002
6,157,955	Narad et al.	12-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 8 – 13, 20 – 25 and 33 – 37 are rejected under 35 U.S.C. 102(e) as being anticipated by Jean **Walrand** (U.S. Patent No. 6,674,760, and referred to as **Walrand** hereinafter).

Regarding independent claims 1, 13, and 25,

Walrand teaches,

a method of classifying [classify, Col. 2, Line 28] Internet Protocol [IP headers, Col. 2, Line 30] data to be sent from [data stream, Col. 2, Line 28] a source apparatus to a destination apparatus [end-to-end, Col. 2, Line 19] in a packet switch network [pocket-switch network, Col. 1, Line 11].

receiving data at a first node [the first accesses node in a sub-network that receives an IP packet, Col. 2, Line 33 – 34], the data comprising a header [IP headers, Abstract] comprising a list of at least one intermediate node [for both inter-subnet and intra-subnet connections, Abstract] to be visited on a way to the destination apparatus [connections, Abstract; see also subnets, Fig. 1]

classifying [classifies] data at the first node [first accesses node] based on an entry in said header [IP destination address, IP source address, and a class of service identifier]. [only information from IP header is necessary to a classification process, Col. 2, Line 34 – 46, see also Abstract]

examiner further explains, the term, "an entry" in a header, has been defined in specification as "destination address field" [Page 8, Lines 1 – 2]

Regarding dependent claims 8, 20, and 33,

Walrand teaches, data [IP pocket, Col. 2, Line 34] is received at said first node [first accesses node, Col. 2, Line 33] from said source apparatus [source, Col. 2, Line 35].

Regarding dependent claims 9, 21, and 34,

Walrand teaches, reserving [allocate] resources of nodes [resources] from said source apparatus to said destination apparatus [end-to-end connection]. [Col. 2, Line 36 – 38]

Regarding dependent claims 10, 22, and 35,

Walrand teaches, forwarding a request from source apparatus to first node [recognizes which end-to-end connection the packet belongs to, Col. 2, Line 36 – 37].

Regarding dependent claims 11, 23, and 36,

Walrand teaches, storing source routing information at first node [first accesses node in a sub-network that receives an IP packet, Col. 2, Line 33 – 34].

Regarding dependent claims 12, 24, and 37,

Walrand teaches, forwarding data from first node to a second node; and classifying said data at said second node based on said entry in said header [IP destination address, IP source address, and a class of service identifier]. [Col. 2, Line 34 – 36, see also Abstract]

Claims 2 – 4, 14 – 16, 26 – 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Walrand**, and in view of Jacob W. Jorgensen (U.S. Patent No. 6,452,915, and referred to as **Jorgensen** hereinafter).

(**Walrand** as set forth above generally discloses the basic inventions.)

Regarding Claims 2, 14 and 26,

Walrand teaches, entry is provided within a header of said data [Col. 2, Line 34 – 36, see also Abstract].

Walrand does not teach, the data for IPv6.

Jorgensen teaches, IP of network layer can be Ipv4 or an IPv6, for the purpose of upgrading.

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Walrand** to include "the data for IPv6" for the purpose of upgrading.

Regarding Claims 3, 15 and 27,

Walrand teaches, classifying is based on a destination address [Col. 2, Line 34 – 35] provided within header [Col. 2, Line 30, see also Col. 2, Line 34 – 36, see also Abstract].

Regarding Claims 4, 16 and 28,

Walrand teaches, header [IP headers, Col. 2, Line 30] includes a segments left field [class of service identifier, Col. 2, Line 35 – 36], a first destination address field [IP source

address, Col. 2, Line 35] and a last destination address field [IP destination address, Col. 2, Line 34 – 35]. Classifying [classifies, Col. 2, Line 34] is based on information within last destination address field [IP destination address, Col. 2, Line 34 – 35] of header [Col. 2, Line 34 – 36, see also Abstract].

Regarding Claim 29,

Walrand teaches, classifying [classifies, Col. 2, Line 34] is based on information within last destination address field [IP destination address, Col. 2, Line 34 – 35] of header [IP headers, Col. 2, Line 30].

Claims 5 – 7, 17 – 19, and 30 – 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Walrand**, and in view of **Jorgensen** as as applied to claims **2 – 4, 14 – 16, 26 – 28, and 29** above, and further in view of Charles E. Narad (U.S. Patent No. 6,157,955, and referred to as **Narad** hereinafter).

Regarding Claims 5, 17, and 30,

Walrand teaches, receiving data at a first node [the first accesses node in a sub-network that receives an IP packet, Col. 2, Line 33 – 34], the data comprising a header comprising a list of at least one intermediate node to be visited on a way to the destination apparatus [Abstract]. Classifying [classifies] data at the first node [first accesses node] based on an entry in said header [IP packet] [Col. 2, Line 34 – 36].

Walrand does not teach, said entry is provided within one of LSRR and SSRR of the data for IPv4.

Jorgensen teaches, IP of network layer can be Ipv4 or an IPv6.

Narad teaches, IP options in IP header [Col. 93, Line 43], header contain IP options [Col. 97, Line 39 – 41], and IP options, for example, LSRR, SSRR [Col. 96, Line 47 and 49]

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Walrand** to include "entry is provided within one of LSRR and SSRR, and the data for IPv4" for the purpose of using in different conditions.

Regarding Claims 6, 18, and 31,

Walrand teaches, classifying is based on a destination address [Col. 2, Line 34 – 35] provided within header [Col. 2, Line 30].

Walrand does not teach, routing header with IP options like LSRR and SSRR, and the data for IPv4.

Jorgensen teaches, IP of network layer can be Ipv4 or an IPv6.

Narad teaches, IP options in IP header [Col. 93, Line 43], header contain IP options [Col. 97, Line 39 – 41], and IP options, for example, LSRR, SSRR [Col. 96, Line 47 and 49]

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Walrand** to include "routing header with IP options like LSRR and SSRR, and the data for IPv4" for the purpose of using in different conditions.

Regarding Claims 7, 19, and 32,

Walrand teaches, routing header [IP headers, Col. 2, Line 30] includes a segments left field [class of service identifier, Col. 2, Line 35 – 36], a first destination address field [IP source address, Col. 2, Line 35] and a last destination address field [IP destination address, Col. 2, Line 34 – 35]. Classifying [classifies, Col. 2, Line 34] is based on information within last destination address field [IP destination address, Col. 2, Line 34 – 35] of routing header [IP headers, Col. 2, Line 30].

Walrand does not teach, routing header with IP options like LSRR and SSRR, and the data for IPv4.

Jorgensen teaches, IP of network layer can be Ipv4 or an IPv6.

Narad teaches, IP options in IP header [Col. 93, Line 43], header contain IP options [Col. 97, Line 39 – 41], and IP options, for example, LSRR, SSRR [Col. 96, Line 47 and 49]

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Walrand** to include "routing header with IP options like LSRR and SSRR, and the data for IPv4" for the purpose of using in different conditions.

(10) Response to Argument

Regarding independent claims 1, 13 and 25, dependent claims 2 – 7, 14 – 19, 26 – 32, starting from page 5 (IX. Appellant's Arguments), from 3rd paragraph of page 11, and from 2nd paragraph of page 12, Appellants argue that Walrand does not disclose or suggest "receiving data

at a first node, the data comprising a header comprising a list of at least one intermediate node to be visited on a way to the destination apparatus", as recited in present claims 1, 13 and 25 [starting from bottom paragraph of page 6 to first line of page 7]. More specifically, Appellants argue that Walrand makes no mention of "a list of intermediate nodes included in the IP header" [see 1st paragraph of page 7, lines 6 – 7].

According to the claims, the header comprising a node between source and destination apparatus, the term "node" in the header is a broad term. It can be an address, a pointer, a name, or just a part of an address or a link. The destination address can have several intermediate points listed, or may just be a pointer to direct the delivery of the packet. Appellants' specification does not provide guidance on narrowing this term.

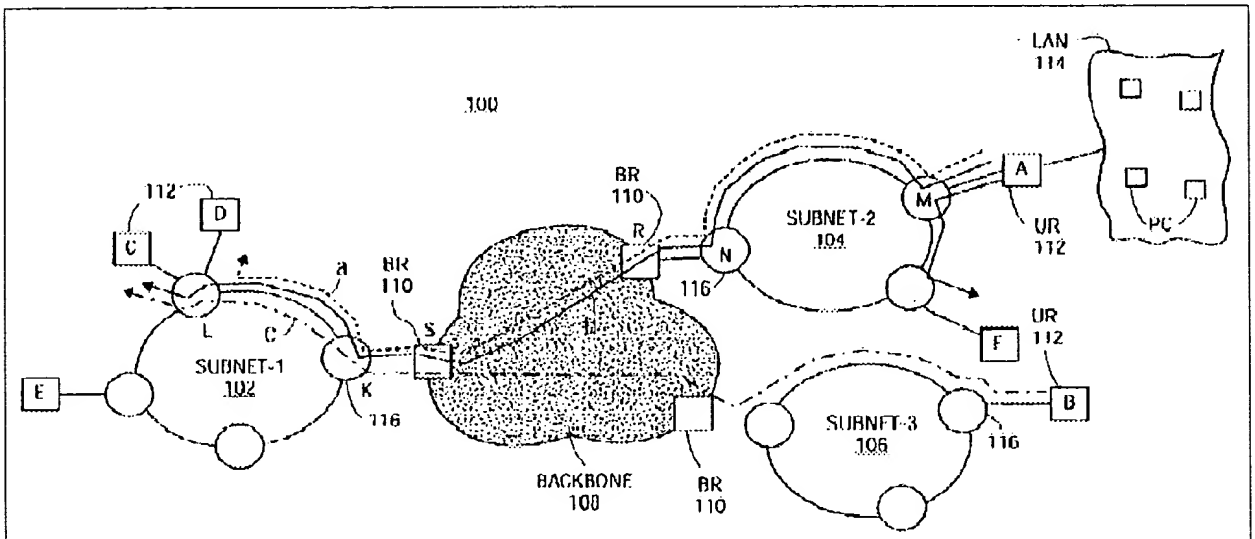

FIG. 1

Walrand discloses an embodiment of his invention which can differentiate connections between router pairs and can classify data streams for both "inter-subnet" and "intra-subnet" connections using only information provided in the IP headers [see col. 2, lines 26 – 30], "user routers (URs) 112, such as A, B, C, D, E, and F shown in Fig. 1. Each user router (UR) is

coupled to one or more local area networks (LANs) 114" [col. 3, lines 4 – 6] and "Each UR 112 and each BR 110 is connected to the respective subnet via various "subnet nodes" (switches) 116, such as those shown at K, L, M, and N in Fig. 1" [col. 3, lines 8 – 11]; Walrand further teaches "Generally in routing packets, when a packet arrives at "a router" or other "switch" (generically referred to herein as "nodes") the node consults a routing table to determine the "next node" to which to send the packet, frequently based upon the IP destination address 210" [Col. 3, Lines 54 – 58].

It is obvious that Walrand discloses a first node, "user router" (URs, such as A, B, C, D, E, and F shown in Fig. 1), can consult with a routine table to determine the "next node" ("subnet nodes", shown at K, L, M, and N in Fig. 1) based upon the IP destination address [col. 3, lines 54 – 58], the only information provided in the IP headers [see col. 2, lines 26 – 30].

Walrand discloses "Further, in each of these scenarios, the objective is to offer QoS to flow between URs and one BR or between URs, which will usually entail identifying the destination address of the designated "router. To identify the destination UR from the destination IP address, a node must use a longest prefix match. Such a match uses the fact that the hosts attached to the same UR have addresses that have one out of a small number of possible prefixes... Using this property of the address, the node can then search a table that contains the string s d, e, f, g to see if the destination address of a packet shares the prefix and determine if it corresponds to that particular UR" [Col. 4, Lines 24 – 41]. It is very clear that Walrand discloses a method to identify the "node" (router, particular UR) using "destination address" as well as identifying the destination apparatus (host computers) [PC, 114 in Fig. 1].

Regarding dependent claims 8 – 12, 20 – 24 and 33 – 37, Appellants argue the limitations "data is received at said first node from source apparatus", "reserving resources of nodes from said sources apparatus to said destination apparatus", and "forwarding a request from source to the first node", which are not disclosed by Walrand, which Walrand discloses "the first accessed node in a subnetwork that receives an IP packet, classifies the packet based upon the IP destination address, the IP source address, and a class of service identifier ... the node recognizes which end-to-end connection the packet belongs to" [Col. 2, Lines 26 – 46] as set forth in rejections.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Supervisory Primary Examiner
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July 7th, 2006

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